



MONTHLY

News and Views from the Connecticut Association of Home Inspectors, Inc.

March 2006

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Meeting Dates

- Mar 22** *Mold Assessment – Gil Cormier, Occupational Risk Control, Inc.*
- Apr 26** *Potability of Groundwater Systems – Ronnie Fields, Premier Laboratory*
- May 24** *Septic Inspection – Rich Dallaire, CT Septic Inspection*

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Have Asphalt Shingles Improved?

Submitted by Rich Kobylenski

Asphalt shingles have been a familiar standby for more than 100 years. Over time, they've come to dominate the steep-slope roofing market, accounting for 80% to 90% of all residential roofs.

Throughout most of this century, shingles didn't change much: 1965's basic product wasn't a whole lot different from 1925's. Since the mid-1970s, however, shingle makers have introduced quite a few innovations, including fiberglass reinforcing mats, self-sealing tabs, laminated construction, and modified asphalt formulas. Today, there are many types of shingles to choose from.

But in the 1980s and 1990s, some of the latest "improvements" turned out to have drawbacks. In particular, homeowners and home inspectors started to report a widespread splitting and cracking problem in fiberglass shingles. Often, shingles warranted for 20 or 30 years would fail in just three to seven years, and warranty service frequently left owners dissatisfied. Eight years after *The Journal of Light Construction* first reported on the cracking and splitting problem ("Choosing an Asphalt Shingle: Organic vs. Fiberglass," 5/93), controversy still simmers over the problem's extent, its causes, and the solutions. When we took a second look at shingle quality this spring, we found that the roofing industry has made strides toward answering complaints and improving its products. Successful lawsuits have spurred shingle makers to pull many low-end shingle brands, and a tightening of codes and standards seems to have improved quality throughout the industry. Home inspectors report seeing the familiar splitting and cracking problem only rarely, and roofer groups acknowledge that the phenomenon has declined.

Picking a shingle still involves some guesswork, and it can still be a gamble. But if you take reasonable care in both selecting and installing shingles, the odds of getting a roof that lasts have improved.

What's in a Shingle

Roofing shingles are a composite product that's tricky to manufacture. Every shingle contains an inner reinforcing mat, a coating of hard asphalt modified with mineral fillers, a top surfacing of mineral granules, and a back-surface dusting of finely ground mineral dust. Each shingle also has a stripe of adhesive sealant across its center to hold shingle edges down when the wind blows.

Each of these components must have the right qualities to do its special job. The strength of the reinforcing mat, the flexibility and durability of the asphalt, the thickness and coverage of the granule layer, and the holding power of the sealant all affect the way the shingles function. Shingle brands can differ in all sorts of ways, but the most critical factors seem to be the strength of the mat and the quality of the asphalt.

Reinforcing mats - Two different types of mats are used in the shingle industry: non-woven fiberglass mats and organic felt mats made of wood fibers and recycled paper. The organic mats are thicker, heavier (more than 20 lb./100 sq. ft.), and a good bit

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President's Corner

Bernie Caliendo

As the legislative short session began Feb 8th, Gov. Rell gave her State of the State speech which contained her budget address. What always sounds like some tax relief and new initiatives, the true meaning of the proposals are always what's in the small print that doesn't make front page news.

If you own a pick-up truck, please read on. 2 Things, (1) opinions stated here are from myself and not CAHI, (2) these are things you need to know.

In the Governor's budget proposal, she decided to try and address a long standing burden concerning citizens of Connecticut in regard to property taxes. The proposal is to eliminate the property tax on cars effective and beginning this year. Misinterpretations in the statewide press states that it would be the elimination of the vehicle property tax. This is incorrect and the true meaning is how the Governor proposed it. "Eliminate the property tax on cars". Excluded from this proposal would be vehicles registered as and with "Combination" & Commercial" plates, I emphasize specifically *pick-up trucks*.

Further in her proposal was a way to compensate the towns and cities from this loss of income. Eliminate the \$350 property tax credit on your state income tax return if you are a home owner in Connecticut. This credit increases to \$400 next year. I don't have an issue with having to pay property tax on commercially registered vehicles, but combination registration is the only other way to register a pick-up. Or maybe not. There was a small bill in 2004, probably attached to something larger, that got passed and signed into law from the 2004 session. Most legislators don't remember debating, voting on or even knowing about it. Lieutenant Governor Sullivan was President of the Senate at the time and he has stated in the press he can't remember debating or voting on this.

However, this little law was adopted and states that if your pick-up truck GVW is 8500 lbs or less, is for personal use only, for a \$45 fee you can change your registration from combination to passenger plates and benefit from this property tax on cars if the legislation is passed. The pick-up truck registration fees remain the same as combination plates. If you use your pick-up for any business use, your are not only plain out of luck, if this proposal passes, you will be paying taxes on your truck as always, but will be losing the property tax credit on your state income tax filing.

Some of the reasoning for this proposal was to encourage people to purchase newer and more energy efficient vehicles. Well, I had a 2001 full size Dodge pick-up that got 11 mpg if I was lucky. In 2005 I purchased a 2005 Chevy Colorado, smaller size pick-up with an energy efficient 5 cyl engine, can carry 5 passengers, gets 19.5 to 22 mpg and I did so mostly for fuel efficiency. This pick-up had to be registered as a combination vehicle. Now lets take someone who buys a gas guzzling sports car or SUV which gets 8-15 mpg, they can register the vehicle as a passenger vehicle (even though most sports cars only carry 2 people), might just use their SUV for some business, they will also lose the \$350 (\$400) property tax credit, but will save all the car property tax paid to their home town. I have no problem with everyone saving on these ever increasing, outrageous property taxes, but lets be fair across the board.

Again, what about the small business person? If this proposal passes, most pick-up truck owners will be paying the full 70% assessed property tax times your local mill rate on your pick-up truck and lose your \$350 (\$400) property tax credit on your state income tax.

You will have a TAX INCREASE if this proposal becomes law!

Get involved. Call your local representative or senator. Let your voice be heard. It can make a difference.

March Keynote Speaker

This month's meeting topic is **Mold in Construction.**

Our meeting will feature Gil Cormier from Occupational Risk Control Services, Inc. as the speaker. Gil is a Certified Industrial Hygienist and has taught CE to us before. He investigates all types of air quality issues.

2 hours of Continuing Education Credits

Lead Case In Rhode Island Could Have a Profound Effect Nationwide

A jury ruled on Wednesday, February 22, 2006 in a Rhode Island case against former lead paint manufacturers: NL Industries Inc, Sherwin-Williams CO., and Millennium Holdings LLC, that they created a public nuisance that continues to poison children in the state. Rhode Island is the first state to prosecute its case against lead pigment & lead paint manufacturers. This case could set a precedent for other states throughout the nation to file suit and hold the industry responsible for clean up and other related costs associated with lead contamination for years to come. The judge in this case will decide later what clean-up costs and/or actions the companies must bear and whether other related damages will be accessed against the companies.

As you know, in the US, lead paint sales were banned in 1978. Many older homes, apartment buildings and other structures still contain lead paint along with older toys and products. Lead has caused serious brain damage in children and health problems to humans.

This could be the test case for litigation throughout the country against former manufacturers, in regard to health problems, contaminated homes and problems for landlords and building owners.

If you are a lead inspector, make sure you have the proper credentials, license and education to conduct a proper lead inspection in Connecticut. Further lead information may be found by contacting the CT Dept. of Public Health, or visit their website at www.dph.state.ct.us

Excerpts were taken from an article in the Hartford Courant by the Associated Press

Articles published in the CAHI Monthly are the sole opinion of the author. CAHI does not endorse or state a position for or against the content of said articles.



As announced at our last regular monthly meeting, March 22nd, CAHI will pass the hat for our members to make a donation to a most worthy cause. CAHI will match dollar for dollar any donation our members make. Please support our veterans and fallen heroes, we owe it to them!

The Intrepid Fallen Heroes Fund is constructing a world-class state-of-the-art advanced training skills facility at Brooke Army Medical Center in San Antonio, Texas. The center will serve military personnel who have been catastrophically disabled in operations in Iraq and Afghanistan. The center will also serve military personnel and veterans severely injured in other operations and in the normal performance of their duties, combat and non-combat related.

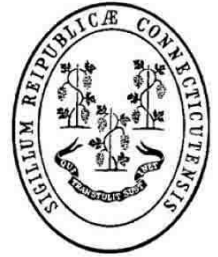
Legislative News

The Environmental Committee has a raised bill in which a public hearing was held Feb. 27th. This bill requires mandatory testing for VOCs in the soil during a real estate transaction for any residential property with well water on site. The results would have to be reported in the "Seller's Disclosure Statement". This soil test would have to be performed by a qualified, licensed Environmental Inspector. If you can remember in 1996 the DPH required well water to be tested for VOCs and due to a lack of contamination on a large scale throughout the state, the department rescinded the requirement in 1997 and left it to the local health authority. Now they want soil tests instead of well water tests. If this bill passes it will be taking the well water test for VOCs away from the home inspector who may offers or suggest this well water test and require soil samples be taken by an Environmental Specialist instead. The stated purpose for this bill is as follows:

"To require a seller of a residence to test the soil for Volatile Organic Compounds where such residence is served by well water and to expand the provisions regarding notification of polluting events"

Home inspectors should reject this legislation and contact the Environmental Committee members and you local representative & senator ASAP!

To look up bills and proposed legislation go to: www.cga.ct.gov





ASK THE ATTORNEY

Question: A plain reading of Connecticut statute chapter 613 section 34-133 seems to indicate that a member of a LLC (home inspector) rendering professional service under standards for professional conduct (home inspection) to a person (client) shall be personally liable and accountable for negligent or wrongful acts or misconduct committed by him (home inspector) or any person under his direct supervision (intern or employee) while rendering professional services on behalf of the LLC to the person for whom the services were being provided (client).

I understood this to mean that during a home inspection, if I miss or incorrectly diagnose a defect, even though I have formed and am operating within a LLC business structure, I can be held personally liable.

Then I read the definition (34-101[23]) pertaining to this section which defines and specifically limits professional service to a variety of licensed professions none of which are home inspectors. My question is, as a member of a LLC, do I have personal asset protection?

Answer: One of the reasons that I strongly recommend that all home inspectors operate as either a limited liability company or corporation is to provide protection from potential liability flowing from inspection services. CGS Section 34-133 states, in part, that generally a limited liability company shall be liable for negligent acts up to the value of its property. CGS Section 34-133 states that "members of a limited liability company rendering professional services found under Sections 34-100 to 34-242 shall be personally liable accountable only for negligent or wrongful acts or misconduct committed by him, or by any person under his direct supervision and control while rendering professional services on behalf of the limited liability company." Therefore, if home inspection is considered to be a "professional service", home inspectors will have personal liability even if inspections are completed on behalf of a limited liability company or corporation.

Fortunately for home inspectors, CGS Section 34-101(23), which defines what a professional service is, does not include home inspection as a profession triggering personal liability. Professionals who are exposed to personal liability, despite operating as a limited liability company or corporation include: dentists, physicians, surgeons, nurses, pharmacists, certified public accountants, and related professionals.

BUS TRIP The Journal of Light Construction New England Residential Construction Show

This trip is offered to Members Only!



Again this year CAHI will be providing a bus ride to the show at the Rhode Island Convention Center in Providence, Rhode Island. Our trip will take place on **Friday, March 24, 2006**. This year we will be attending from 9:00 a.m. to 2:00 p.m. 5 hours of continuing education will be awarded to those who attend.

You need to do 2 easy things:

1. Log on to: **www.JLCLIVE.com** or call (800) 261-7769 and register for the FREE 2-day Expo pass. Register ASAP to receive this \$35 pass Free. They have a deadline and when the deadline expires, you will have to pay the \$35 fee. The fee also applies to walk-ins at the door, so REGISTER now, don't wait! You will receive your packet in the mail within a few weeks. Don't open it! The information in the packet are the documents you will need at the door to receive your free pass at the center. Don't forget to bring your packet with you on the bus.
2. You must reserve a seat on the bus and CAHI needs to know in advance who and how many are going to the show. To reserve a bus seat, you MUST e-mail CAHI at: **ctinspect@yahoo.com** or fax Bernie Caliendo at: (860) 298-9977 ASAP. We need: **your name, phone # or e-mail address and desire to attend: JLC-LIVE Show on March 24th**. DON'T WAIT!!! If you don't register with the JLC & CAHI you will not receive a CE certificate.

This year we will have **2 pick-up points:**

1. **7:00 a.m. Manchester commuter parking** lot across the street from Home Depot on Buckland Road behind Jonathan Harvards Brew House. Same place as all our other bus trips. THE BUS LEAVES AT 7:00 SHARP!
2. **7:30 a.m. Long Warf commuter parking lot.** ON THE WATER SIDE and at the 1st lot. This lot is the furthest lot west on the water side and just at the turn from under the overpass. You can park at the 2nd lot if you would like but WALK down to the 1st site as the entrance to 95 East is before the second lot and we don't want to miss you or have you watch the bus go by. If so just wave, we will let you know how good the show was.

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stronger than the fiberglass mats, and are saturated with a soft, pliable asphalt that binds the fibers together and protects them from water. Fiberglass mats, on the other hand, weigh very little (around 2 lb./100 sq. ft.), and are bound together with a phenolic adhesive. Since they are not affected by water, fiberglass mats don't have to be saturated with asphalt.

The asphalt - Organic shingles use two kinds of asphalt: a soft saturating asphalt in the mat and a harder, filler-modified coating asphalt for the top and bottom surfaces. Fiberglass shingles have just the coating asphalt, and so use less asphalt overall. This has made fiberglass shingles less vulnerable to oil price hikes, since asphalt's price reflects the price of the crude oil it's made from. (However, even fiberglass shingle brands have been squeezed by recent high oil prices.) Asphalt formulas are complex, and the quality of both the soft and hard kinds is challenging for manufacturers to control. The coating asphalt needs finely ground mineral fillers to stabilize it, but the amount and type of filler have to be carefully monitored in order for the asphalt to have the right combination of flexibility, scuff resistance, and durability over time.

Fiberglass vs. Organic

Fiberglass shingles have come to dominate the market, for several reasons: They are lighter and easier to handle, they are more resistant to moisture, and they carry a higher fire rating than organic shingles.

But organic shingles remain popular in the northern United States and in Canada. Many roofers say that organic shingles are easier to handle in cold weather, and while the hot sun in the southern U.S. can degrade their soft asphalt, they hold up well in colder climates.

Splits and Cracks

While both kinds of shingles can suffer performance problems, the widespread cracking and splitting problems of the 1980s and 1990s involved only fiberglass shingles, particularly the lighter-weight brands. Organic shingles suffer occasional defects that can make the shingles cup, curl, or lose granules, but they don't generally split: If the coating asphalt stiffens with age and cracks, the softer asphalt underneath tends to stay intact, and the very strong organic mat restrains the crack and stops it from progressing.

In fiberglass shingles, by contrast, a split in the brittle coating asphalt can go right through the shingle, sometimes overwhelming the limited strength of the mat. Thermal shrinkage puts tension on the shingles when temperatures fall, and once a crack gets started, it tends

to propagate itself as the stress concentration moves along the split. In fact, in shingles that are vulnerable to the problem, splits and cracks that start in one shingle are often seen to run from shingle to shingle over large areas of the roof.

Preventing the cracking problem requires the manufacturer to pay attention to both the fiberglass mat and the asphalt. The asphalt blend has to be flexible, but not too soft, with just the right amount of filler. The mat, for its part, has to have adequate strength and be positioned near the center of the shingle so that it isn't overstressed if the shingle bends up or down.

Unfortunately, it is very hard for the buyer to know anything about the asphalt or the mat in a shingle. Appearances can be deceiving: A thick, heavy shingle might have poor quality asphalt with too much filler, or it could have a very lightweight fiberglass mat; and a thin shingle that feels flimsy may in fact have good toughness and flexibility, with a well-made asphalt mix that will stand up to years of exposure. Labels and product literature do not include information about the shingle ingredients, and manufacturers typically will not disclose the details.

Objective standards elusive - Since the eye is no judge, the industry has looked for objective measures. Roofer organizations have pressured the manufacturers for years to develop industry standards to ensure the quality of shingles on the market. There has been a lot of argument about the properties, types of test, and test minimums that should be required; a manufacturers task force that formed in 1993, for instance, recommended tests for tensile strength and elongation, but was never able to develop any. The same task force proposed a grading system for shingles, with labels to distinguish Grade A, Grade B, and Grade C; but companies could not agree on the terms of any such system.

However, there has been progress on one industry standard, ASTM D 3462, which sets minimum weights for shingles and for their reinforcing mats, and which also includes several physical test protocols that shingles must pass to comply. D 3462 has been amended seven times since 1993 — and it seems to be having some effect.

Testing Standards Debated

The American Society for Testing and Materials (ASTM) writes voluntary standards for just about every material produced in America. Committees include representatives from all parts of the industry involved — most or all of the manufacturing companies participate, along with "general interest" members such as architects, engineers, or literally anyone who is motivated to join and attend

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meetings. Standards are set by consensus, not by majority vote -- any member's objection to a proposed change sets off a new round of deliberations.

Fiberglass-asphalt shingles fall under ASTM Standard D 3462; organic shingles are covered by ASTM Standard D 225. Before the cracking problem appeared in the late 1980s, the committee that writes and amends ASTM D 3462 was little noticed, and the standard itself was widely ignored. But when roofer groups began to voice vigorous complaints about shingle defects, the D 3462 committee became a focus of hot disputes.

Different "stakeholders" — companies or other groups with an interest in the standard — have pushed different points of view in these discussions. Manufacturers who target the low-cost do-it-yourself market with "commodity-grade" shingles have argued against upgrading or enforcing it, while companies who mainly sell through big wholesalers to professional roofers have wanted the standard toughened.

As a result, the standard still represents something of a compromise: Some roofers and even some manufacturers believe the minimum requirements are too low. But in recent years, new requirements have been introduced that test shingle qualities in new ways.

Tear test - The standard has long included a tear strength provision based on the Elmendorf tear tester, a pendulum device that measures the force needed to tear a shingle. To comply, shingles need an average strength of at least 1700 grams. While some companies maintain that tear testing does not identify the qualities a shingle really needs in service, other companies have joined roofers in supporting the requirement, and it remains in force.

Nail pull-through - One new requirement in ASTM D 3462 is a fastener pull-through test that measures the force needed to pull a nail head through the shingle at two temperatures (around 73°F and around 32°F). CertainTeed's technical director Mike Noone, who pushed for the nail-pull requirement, is chairman of ASTM's committee for asphalt shingles. He says CertainTeed's research shows that the nail-pull test is a good measure of a shingle's overall toughness. However, Noone believes the pull-through minimums should be set higher: "At 32°F, the value is 23 pounds [of force required to pull the nail through the shingle]. I think if you aren't closer to 30 you aren't going to do very well on the roof."

Pliability - Another new requirement is a pliability test that requires the shingles to handle a right-angle 1-inch

radius bend without cracking. This helps to ensure that efforts to increase shingle thickness or strength don't make the products too stiff or brittle.

Future enhancements - One change that has been talked about, but not yet adopted, is a test method that would put shingles through an accelerated heat conditioning process in a "dark oven" to simulate the effects of heat aging in the field, before subjecting the shingles to the nail-pull, tear, and pliability tests. CertainTeed's Noone says his company's research shows that this process would predict how well shingles would retain their toughness and flexibility after enduring years of sunlight. But the technology to withstand this kind of abuse involves the complex chemistry of asphalt, and not all manufacturers are eager to take the problem on.

Tests vs. Reality

In fact, companies still argue over whether the tests in the existing standard relate to the actual causes of performance failures.

In the early 1990s, the Asphalt Roofing Manufacturers Association (ARMA) argued that ASTM D 3462, especially the tear-test part, didn't bear on the cracking and splitting problem. Asserting that other shingle qualities such as pliability and tensile elongation were more the issue, ARMA argued against raising or enforcing the tear-test requirement.

Roofing organizations like the National Roofing Contractors Association (NRCA), the Midwest Roofing Contractors Association (MRCA), and the Western States Roofing Contractors Association (WSRCA) took the opposite side. "NRCA's opinion is that compliance with D 3462 is the principal indicator," says Tom Bollnow of the NRCA technical services staff. "It's not the only causal effect, but it is an indicator that the shingle is more likely to perform than one that doesn't comply."

On the other hand, notes Bollnow, "You have to be careful. There are certain things a manufacturer can do to a shingle to increase the tear strength that might have adverse effects on the rest of the shingle. And there are some shingles that don't meet the ASTM 1700-gram tear-strength minimum that are performing fine."

"But in eight years," Bollnow says, "they haven't been able to come up with another test. This is the one we have."

Engineer Kent Blanchard is a TAMKO executive who serves on the ASTM task force for the D 3462 standard.

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He questions relying on the standard as a guide: "D 3462 has become a proxy for quality, and that is not right. If you really want to know how the shingle is made, you've got to know about the filler, the asphalt, the granules.... [A shingle] could meet D 3462 and still have a problem with the asphalt or the filler. Even 2000 grams of tear strength does not guarantee that you are not going to have problems with the shingle."

Blanchard argues in favor of market forces. "The people that have to determine whether the product is good enough are the ones who install it. They buy a shingle and if they don't have problems with it, they will stick with that shingle. When they start having problems they bail out of the shingle. I know of roofing manufacturers who knew they were putting out a bad shingle, but if you are in it for the long haul, you can't do it that way."

"There is a lot more to the buying process than an ASTM standard," insists Blanchard. "That's not to say, 'let's don't have any standard,' but don't put your trust in a standard. You have to put your trust in the company, that they know how to make a good shingle."

Mike Noone counters Blanchard this way: "Whatever he may say, his company's shingles still pass D 3462." CertainTeed, like most manufacturers, routinely runs its competitors' brands through ASTM testing, and Noone says, "I don't think I've ever seen one of theirs [TAMKO's] that doesn't pass D 3462. Most of them are well above it." And in fact, a check of TAMKO's web site shows that their product literature for one brand, the Stormfighter, claims test results of more than double the ASTM minimums.

ASTM and the Building Code

A decade ago, with the cracking problem hurting their businesses, roofers started pushing to include the D 3462 shingle standard in building codes. In 1997, the roofers got their way. The most recent versions of ICBO, BOCA, and SBCCI codes require D 3462 compliance, as does the new *International Residential Code* created jointly by all three bodies. Only in states or municipalities where pre-1997 versions of the codes still apply are non-ASTM-compliant shingles allowed.

Tim Ryan, a building official in Overland Park, Kan., is on the International Code Council board of directors. Overland Park has adopted the new International Code, and Ryan says his office is enforcing ASTM D 3462 for asphalt shingle roofs.

"Different localities handle it differently," says Ryan. "Some require separate permits for roofing, some

incorporate it into the general building permit. Some want to be out at the site when they deliver the roofing material, because the product's not labeled — just the wrapper is. Our guys will pick up the wrappers off the ground to see if the shingles are properly labeled. If we found a non-compliant shingle on the roof, we'd make them take it off, or else get an evaluation report from the manufacturer that says it does comply."

Verifying Compliance

ASTM doesn't perform any testing itself, relying on manufacturers to monitor their own compliance with standards. In 1997, *Consumer Reports* magazine ran a selection of shingle brands through the ASTM tear test and printed their findings. They discovered that some shingles whose bundle wrappers claimed compliance with ASTM D 3462 actually failed the tear-test minimum. (Not surprisingly, shingles that weren't labeled as ASTM-compliant flunked also).

With shingle buyers questioning the manufacturers' self-certification, companies began turning to independent certifiers. Underwriters Laboratories (UL) has long had an independent testing program to certify that fiberglass-asphalt shingles meet the ASTM test for Class A fire resistance. Now companies can enroll in a similar UL program that certifies compliance with ASTM Standard D 3462. A shingle that tests out okay, and continues to pass tests monitored by UL in random factory visits, gets the right to use the familiar "UL" mark on its bundles. CertainTeed was the first to get the UL stamp; after buying out shingle makers Bird, Celotex, and GS, CertainTeed brought those brands into compliance and now has them UL-certified also. Other companies have since followed suit, and the majority of brands now have UL certification.

However, many companies still make ASTM-compliant and substandard versions of the same brand, selling one where compliance is enforced and another where it isn't. Also, it's important when you check for the UL sign to make sure that it relates specifically to ASTM D 3462 and not some other standard: All fiberglass shingles have been marked as meeting the UL Class A fire resistance standard for many years, but that has no bearing on the strength or durability of the shingle.

Aging concerns - There is some concern about whether shingles that pass the standard when they are manufactured will keep their good qualities over time. Tear-test values, in particular, have been reported to drop quickly: UL's Ken Rhodes reports that some shingle brands that pass factory testing may flunk after a few months of storage in the package. Rhodes says

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nail-withdrawal and pliability results don't show the same decline.

CertainTeed's Mike Noone says that this drop in test values has only been seen in a few cases, but he says it has prompted some manufacturers to argue that the D 3462 standard should only apply on the day the shingles are made, not months later. Noone disagrees: "You should be able to test the shingles three or six months later and find that they pass."

In the field after years of service, it is clear that test results drop. Carl Cash, an engineer with consulting firm Simpson, Gumpertz, and Heger, has investigated large numbers of failed roofs, and says shingle samples from roofs with splitting and cracking show very low tear test values — 400, 800, or 1000 grams on the tear-test, rather than the standard minimum of 1700 grams.

These low values after years of exposure aren't in themselves considered a violation of ASTM D 3462, which is primarily a manufacturing standard; but they may be a good argument in favor of choosing shingles that far exceed the minimums, rather than barely passing them. Even so, Cash admits, "There are shingles out there that have a lower tear strength than 1700 grams that are performing adequately."

Installation Smoke Screen

Companies that make shingles, or any other product, typically make it a practice to look at installation when the product's performance is called into question. In the case of the well-known cracking problem, says Carl Cash, that is a smoke screen.

Cash chairs ASTM's overall roofing committee, with responsibility for commercial "flat" roofing products as well as steep-slope materials. He has served as an expert witness for the plaintiffs in lawsuits over defective shingles.

Cash states flatly, "There is nothing a roofing contractor can do to cause a roofing shingle to split, and there is nothing a contractor can do to prevent a shingle from splitting if it wants to."

"One of the things manufacturers focus on is the

lack of ventilation in the attic," notes Cash. "That is a load of [baloney]. I have seen vented and unvented roofs side by side with the same orientation, same contractor, both split to the same degree. Ventilation is important for survival of the roof deck, but not for preventing shingle splitting."

About Warranties

Most experts agree that with shingles, you get what you pay for — usually. The cheaper shingles are more likely to suffer early deterioration, while the higher priced shingles will probably last longer. Most often, a company also offers longer warranties on the pricier shingles. And although "20-year" shingles have become scarcer, some companies still produce a "20-year" shingle at bargain prices as well as a middle-of-the-market "25-year" line, and perhaps a premium line of shingle with a warranty term of 30 or 40 years, or even a "lifetime" warranty.

Technical people throughout the industry, however, generally agree that the warranties are little more than a marketing device, and can't be considered an accurate predictor of shingle life.

Read the fine print - As for the protection warranties offer the buyer, other factors are more important than the length of the term. Most warranties are prorated, losing a portion of their value every year; but some have an introductory term of five, seven, or ten years in which the full value is covered. Most warranties only cover the original buyer, but some will cover a second or third homeowner, at least in part. And the restrictions on installation details also vary slightly, although virtually all warranties can be voided if the installer doesn't follow the instructions on the label.

The big difference in warranties relates to this last point — whether the company will honor it or use some installation issue to avoid paying. Very few roofs, if any, are perfectly installed, and if a company is determined to avoid paying out, they can usually come up with an excuse to do so. So it really comes down to whether the manufacturer is motivated to stand behind its product, and has the means to do so. In this regard, TAMKO's Kent Blanchard's point may hold: It's the installer who ultimately has to judge the manufacturer's

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**Guest Speaker
or
Newsletter Article**

CAHI will pay \$25.00 to any member who provides us with a guest speaker for one of our monthly meetings or for any article that is submitted and used in the monthly newsletter.

Your guest speaker's name and contact number should be given to Woody Dawson (203) 272-7400 or Barry Small (860) 655-6383 (barrysmall@yahoo.com).

Articles must be e-mailed to Rich Kobylenski (rkoblenski023@earthlink.net) and should be a PDF or Word document. Articles should pertain to our industry.

We will review articles for content and reserve the right to edit, use and/or refuse them.

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trustworthiness.

"I was 30 years in the contracting industry," says the NRCA's Tom Bollnow. "As a contractor you try to associate with one or two manufacturers that are going to provide service. Out of thirteen manufacturers, there might be one or two that have a problem, but seven or eight are going to be pretty much the same."

On the other hand, notes Bollnow, "Companies can change hands, policies can change. That's the value of belonging to a contractor association — you get to talk to other contractors, and if you hear of problems with a company that you have been dealing with, you watch out."

Ted Cushman is a contributing editor for The Journal of Light Construction.

Articles published in the CAHI Monthly are the sole opinion of the author. CAHI does not endorse or state a position for or against the content of said articles.

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The Licensing Board meetings are held at 9:30 am, Department of Consumer Protection, Room 117, 165 Capitol Avenue, Hartford.

The public is always welcome.

E-mail Bernie Caliendo for the latest meeting schedule at bsurehomeinspect@juno.com